

**Summary Report: HIV Infection, Risk, Prevention, and Testing
Behaviors Among Persons Who Inject Drugs
National HIV Behavioral Surveillance in Hampton Roads Metropolitan
Statistical Area, 2022**

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National HIV Behavioral Surveillance (NHBS) is a national surveillance project that collects behavioral data and conducts anonymous HIV testing among persons at increased risk for acquiring HIV. A standardized questionnaire is used to collect data relating to sociodemographic information, behavioral risk factors for HIV, HIV testing behaviors, receipt of prevention services, and use of prevention strategies.¹ NHBS collects data in 22 urban areas with high prevalence of HIV, each of which rotate data collection between three key populations: men who have sex with men (MSM), persons who inject drugs (PWID), and heterosexual persons at increased risk of HIV infection (HET). Data are collected in annual cycles from one risk group per year, meaning each population is surveyed every three years. In 2022, Virginia conducted NHBS activities in the Hampton Roads Metropolitan Statistical Area (Hampton Roads MSA) for the PWID cycle.

Sample Recruitment and Eligibility

General eligibility criteria across all three cycles include: 18 years of age or older, current resident in a participating MSA, no previous participation in NHBS during the current survey cycle, ability to complete the survey, and ability to provide informed consent. An additional eligibility criterion applied for the 2022 PWID cycle was reported injection drug use in the past 12 months.²

In 2022, NHBS participants were recruited through a process called respondent driven sampling (RDS), in which participants recruit other people they know to participate. All interviews were conducted remotely, by videoconference call, from July-

December 2022. Virginia NHBS screened 692 individuals for participation in the project; 543 (78%) were eligible and completed the survey. Among those who completed the survey, 534 (98%) received an HIV test. Data for those 534 participants that completed the survey are included in this report.

Sociodemographic Characteristics

Among the 534 PWID participants, 69% were male and 31% were female (Table 1). The majority of participants were black (79%), 15% were white, 2% were Hispanic, and 4% reported some other race. Thirty-two percent of participants were 60 years or older, 32% were 50-59 years of age, 20% were 40-49 years of age, 13% were 30-39 years of age, and 3% were 18-29 years of age. The majority of participants self-identified as heterosexual (91%), 8% as bisexual, and 1% as homosexual, gay, or lesbian. Fifty-one percent of participants had never been married, 33% were separated, divorced, or widowed, and 16% were married or living with someone. For education level, nearly half of participants had completed high school or received a GED (43%), 38% had less than a high school education, 18% completed some college or a technical degree, and 1% completed a college degree or more. Thirty-two percent of participants were unemployed, 30% were unable to work for health reasons, 22% were employed (11% full time, 11% part time), and 7% were retired. In terms of finances, 64% of participants reported an annual household income of less than \$15,000, 15% reported an annual income of \$15,000 to \$24,999, 13% reported an

annual income of \$25,000 to \$39,999, 5% reported an annual income of \$40,000 to \$59,999, and 3% reported an annual income of \$60,000 or more. In the previous 12 months, 49% of participants reported being homeless. Among participants who reported ever being incarcerated, 22% reported being incarcerated in the past 12 months. The two most common responses for current county of residence were Norfolk City (60%) and Newport News City (26%).

Health Insurance Coverage and Health Care Utilization

The majority of participants reported that they had health insurance or health care coverage (85%) at the time of the survey (Table 2). Among participants with health insurance, the most commonly reported types of insurance included Medicaid (80%), followed by Medicare (23%), Veterans Administration (4%), private (2%), and other government plans (2%). Types of insurance are not mutually exclusive; therefore, participants can report more than one type. Ninety-three percent of participants reported having a usual source of care where they can go when sick or need health-related help. The locations for usual sources of care included hospital emergency room (41%), doctor's office or HMO (29%), clinic or health center (24%), and some other location (7%). The majority of participants reported visiting a health care provider in the 12 months prior to the interview (78%). Among participants who did not visit a health care provider in the previous 12 months, 64% had a visit between one to two years ago, 28% had a visit two to five years ago, and 8% had a visit more than five years ago. Sixteen percent of

participants reported not receiving necessary medical care in the past 12 months because they were unable to afford it.

Substance Use

The majority of participants reported having at least one alcoholic drink in the past 30 days (75%; Table 3). Among those who reported drinking alcohol, 25% reported binge drinking in the past 30 days. For males, the median largest number of alcoholic drinks consumed on a single occasion was three drinks (range, 0.0-23.0); for females, the median was three drinks (range, 0.0-15.0; Table 4).

The majority of participants reported non-injection drug use in the past 12 months (83%; Table 3). Heroin was the most commonly used non-injection drug among those who reported any non-injection drug use (80%). Heroin was also the most commonly injected drug among participants (97%). In terms of frequency of injection drug use in the past 12 months, 70% of participants reported injecting more than once a day, 12% injected once a day, 12% injected more than once a week, and 7% injected once a week or less. When injecting, 33% of participants reported using a sterile needle most of the time, 28% always used a sterile needle, 27% reported using a sterile needle about half of the time, 9% rarely used a sterile needle, and 3% never used a sterile needle. Among participants who reported using a needle after someone else in the past 12 months, 67% reported this occurring rarely, with smaller percentages reporting this occurring about half the time (26%), most of the time (5%), and always (2%). More than half of participants who reported giving

their used needle to someone else in the past 12 months reported this occurring rarely (63%), with smaller percentages reporting this occurring about half of the time (24%), most of the time (9%), and always (4%).

Sexual Behavior

Among sexually active males, the median number of sexual partners in the past 12 months was two (range, 1.0-50.0); among sexually active females, the median number of sexual partners was two (range, 1.0-260.0; Table 5).

Among sexually active males, 52% reported having sex with only main partners, 32% reported both main and casual partners, and 15% reported only casual partners. Among sexually active females, 48% reported having sex with only main partners, 37% reported both main and casual partners, and 15% reported only casual partners (Table 6). More males reported having condomless sex in the past 12 months compared to females (84% and 46%, respectively); however, more females reported exchanging sex for money or drugs than males (40% and 28%, respectively). More females reported having sex with a partner whose HIV status was either positive or unknown compared to males (58% and 46%, respectively). Thirty-eight percent of males had a partner who injected drugs compared to 59% of females.

HIV/STI Testing

The majority of participants reported having ever received an HIV test (91%); however, only 29% of these participants reported receiving an HIV test in the past 12 months (Table 7). Among participants

with a recent HIV test (n=139), the three most common locations of the test were in a public health clinic or community health center (24%), a hospital (22%), and a private doctor's office (13%). Among participants who have never tested positive for HIV and did not report a recent HIV test (n=332), 65% reported no particular reason, 13% were afraid of finding out they had HIV, 13% believed they were at low risk for HIV infection, 6% reported not having time, and 4% reported some other reason for not testing. Less than a quarter of participants received gonorrhea, chlamydia, and/or syphilis testing in the past 12 months (24%).

HIV Prevalence

Four percent (n=18) of participants who have ever received an HIV test reported testing positive for HIV (Table 8). Among those eighteen participants, 100% were told where to get care within 30 days of their first positive HIV test result and 100% have seen a health care provider for their HIV infection. Among participants who have seen a health care provider, 78% are currently taking antiretroviral medicines and 94% reported having ever had an HIV viral load (VL) test. Results of the most recent VL test were undetectable (less than 200 viral copies/mL) for 86% of participants and detectable, but less than 5,000 viral copies/mL for 14% of participants.

HIV Prevention

Forty-two percent of participants reported receiving free condoms in the past 12 months (Table 9). The three most commonly cited locations where participants received free condoms were doctor's office, health center, clinic, or

hospital (32%), some other place (27%), and drug or alcohol treatment center (24%). Nineteen percent of participants reported participating in HIV behavioral interventions, defined as one-on-one conversations with an outreach worker, counselor, or prevention program worker about ways to prevent HIV or organized sessions involving a small group of people to discuss ways to prevent HIV, in the past 12 months.

Among the participants who have never tested positive for HIV (n=515), 30% had heard of pre-exposure prophylaxis (PrEP) before the interview. Of these individuals, 5% reported having a discussion with a health care provider about taking PrEP and 0% reported taking PrEP in the past 12 months.

Suggested Citation

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References

[1] Centers for Disease Control and Prevention (CDC). National HIV Behavioral Surveillance (NHBS). <https://www.cdc.gov/hiv-data/nhbs/index.html>

[2] Centers for Disease Control and Prevention. National HIV Behavioral Surveillance System Round 6: Model Surveillance Protocol. December 2021. www.cdc.gov/hiv/statistics/systems/nhbs/operations.html.

**Table 1. Participant characteristics - NHBS persons who inject drugs,
Hampton Roads MSA, 2022**

| | n | % |
|-----------------------------------------|-----|------|
| Gender | | |
| Male | 367 | 68.7 |
| Female | 167 | 31.3 |
| Race | | |
| Black | 423 | 79.2 |
| White | 80 | 15.0 |
| Hispanic | 10 | 1.9 |
| Other | 21 | 3.9 |
| Age at time of interview (years) | | |
| 18-29 | 18 | 3.4 |
| 30-39 | 67 | 12.6 |
| 40-49 | 106 | 19.9 |
| 50-59 | 173 | 32.4 |
| 60+ | 170 | 31.8 |
| Sexual orientation | | |
| Heterosexual | 485 | 91.0 |
| Homosexual, gay, or lesbian | 4 | 0.8 |
| Bisexual | 44 | 8.3 |
| Marital status | | |
| Never married | 271 | 50.8 |
| Separated, divorced, or widowed | 177 | 33.2 |
| Married or living together | 86 | 16.1 |
| Education | | |
| Less than high school | 205 | 38.4 |
| High school diploma or GED | 227 | 42.5 |
| Some college or technical degree | 96 | 18.0 |
| College degree or more | 6 | 1.1 |

Table 1. Participant characteristics - NHBS persons who inject drugs, Hampton Roads MSA, 2022 (continued)

| | n | % |
|-------------------------------------------------|-----|------|
| Employment status | | |
| Unemployed | 172 | 32.2 |
| Unable to work for health reasons | 162 | 30.3 |
| Employed full time | 59 | 11.1 |
| Employed part time | 57 | 10.7 |
| Retired | 36 | 6.7 |
| Homemaker | 7 | 1.3 |
| Full-Time student | 2 | 0.4 |
| Other | 39 | 7.3 |
| Household income (annual) | | |
| \$0 to \$14,999 | 342 | 64.4 |
| \$15,000 to \$24,999 | 77 | 14.5 |
| \$25,000 to \$39,999 | 69 | 13.0 |
| \$40,000 to \$59,999 | 27 | 5.1 |
| \$60,000 + | 16 | 3.0 |
| Homeless, past 12 months^a | | |
| Yes | 264 | 49.4 |
| No | 270 | 50.6 |
| Incarcerated, past 12 months^b | | |
| Yes | 105 | 22.3 |
| No | 365 | 77.7 |
| Current county of residence | | |
| Chesapeake City | 11 | 2.1 |
| Hampton City | 41 | 7.7 |
| Isle of Wight County | 1 | 0.2 |
| Newport News City | 140 | 26.2 |
| Norfolk City | 320 | 59.9 |
| Portsmouth City | 6 | 1.1 |
| Virginia Beach City | 11 | 2.1 |
| Williamsburg City | 3 | 0.6 |
| York County | 1 | 0.2 |

^a Includes living on the street, in a shelter, in a Single Room Occupancy hotel (SRO), or in a car

^b Data include participants that reported ever being incarcerated. Incarcerated is defined as having been held in a detention center, jail, or prison for more than 24 hours

Table 2. Health insurance and health care utilization - NHBS persons who inject drugs, Hampton Roads MSA, 2022

| | n | % |
|------------------------------------------------------|-----|------|
| Current health insurance/coverage | | |
| Yes | 454 | 85.2 |
| No | 79 | 14.8 |
| Type of health insurance/coverage^a | | |
| Medicaid | 364 | 80.2 |
| Medicare | 104 | 22.9 |
| Veterans Administration | 19 | 4.2 |
| Private | 11 | 2.4 |
| Other government plan | 9 | 2.0 |
| TRICARE/CHAMPUS | 1 | 0.2 |
| Other | 2 | 0.4 |
| Usual source of care | | |
| Yes | 492 | 93.4 |
| No | 35 | 6.6 |
| Location of usual source of care^b | | |
| Hospital emergency room | 201 | 40.9 |
| Doctor's office or HMO | 143 | 29.1 |
| Clinic or health center | 116 | 23.6 |
| Other | 32 | 6.5 |
| Health care visit, past 12 months | | |
| Yes | 413 | 77.5 |
| No | 120 | 22.5 |
| Time since last health care visit^c | | |
| More than 1 year, but less than 2 years ago | 77 | 64.2 |
| 2 to 5 years ago | 33 | 27.5 |
| More than 5 years ago | 10 | 8.3 |
| Unable to afford needed medical care | | |
| Yes | 86 | 16.1 |
| No | 447 | 83.9 |

^aData include participants that have current health insurance/coverage. Categories are not mutually exclusive

^bData include participants that have a usual source of care

^cData include participants that did not have a health care visit in the past 12 months

Table 3. Substance use - NHBS persons who inject drugs, Hampton Roads MSA, 2022

| | n | % |
|-------------------------------------------------------------------------|-----|------|
| At least one alcoholic drink, past 30 days | | |
| Yes | 401 | 75.2 |
| No | 132 | 24.8 |
| Binge drinking, past 30 days^a | | |
| Yes | 102 | 25.4 |
| No | 299 | 74.6 |
| Non-injection drug use, past 12 months | | |
| Yes | 443 | 83.1 |
| No | 90 | 16.9 |
| Most frequently reported non-injection drug type^b | | |
| Heroin | 351 | 79.6 |
| Injection drug use, past 12 months | | |
| More than once a day | 372 | 69.9 |
| Once a day | 63 | 11.8 |
| More than once a week | 61 | 11.5 |
| Once a week or less | 36 | 6.8 |
| Most frequently reported injection drug type | | |
| Heroin | 516 | 96.8 |
| Use of sterile needle when injecting, past 12 months^c | | |
| Always | 149 | 28.0 |
| Most of the time | 177 | 33.3 |
| About half of the time | 142 | 26.7 |
| Rarely | 46 | 8.7 |
| Never | 18 | 3.4 |
| Used needle after someone else, past 12 months^d | | |
| Always | 3 | 2.3 |
| Most of the time | 7 | 5.3 |
| About half of the time | 34 | 25.6 |
| Rarely | 89 | 66.9 |

**Table 3. Substance use - NHBS persons who inject drugs,
Hampton Roads MSA, 2022 (continued)**

| | n | % |
|--------------------------------------------------------------------------------|-----|------|
| Gave needle to someone else after injecting, past 12 months^e | | |
| Always | 7 | 3.9 |
| Most of the time | 17 | 9.3 |
| About half of the time | 44 | 24.2 |
| Rarely | 114 | 62.6 |

^a Binge drinking defined as 4 or more drinks for females and 5 or more drinks for males in one sitting; Data include participants that reported drinking alcohol in the past 30 days

^b Data include participants that reported non-injection drug use in the past 12 months

^c Sterile needle is defined as a needle never used by anyone, even the participant

^d Data include participants that reported not always using a sterile needle and reported using a needle after at least one person in the past 12 months

^e Data include participants that reported giving a needle to someone else after injecting with it in the past 12 months

Table 4. Median and range of largest number of alcoholic beverages consumed on a single occasion in the past 30 days- NHBS persons who inject drugs, Hampton Roads MSA, 2022

| | median | mean | SD | range |
|----------------|--------|------|-----|----------|
| Males | 3.0 | 3.5 | 2.9 | 0.0-23.0 |
| Females | 3.0 | 3.4 | 2.9 | 0.0-15.0 |

**Table 5. Median and range of sexual partners, among sexually active -
NHBS persons who inject drugs, Hampton Roads MSA, 2022**

| | median | mean | SD | range |
|----------------|--------|------|------|-----------|
| Males | 2.0 | 3.3 | 5.4 | 1.0-50.0 |
| Females | 2.0 | 9.7 | 28.0 | 1.0-260.0 |

Table 6. Sexual behavior in the past 12 months, among sexually active - NHBS persons who inject drugs, Hampton Roads MSA, 2022

| | Males (n=298) | | Females (n=129) | |
|-----------------------------------------------------------------|------------------|------|--------------------|------|
| | n | % | n | % |
| Type of partner for vaginal or anal sex | | | | |
| Main only ^a | 154 | 52.4 | 61 | 48.0 |
| Main and casual | 95 | 32.3 | 47 | 37.0 |
| Casual only ^b | 45 | 15.3 | 19 | 15.0 |
| Condomless sex | | | | |
| Yes | 250 | 83.9 | 59 | 45.7 |
| No | 48 | 16.1 | 70 | 54.3 |
| Exchange sex^c | | | | |
| Yes | 83 | 27.9 | 51 | 39.5 |
| No | 215 | 72.2 | 78 | 60.5 |
| Sex with partner whose HIV status is positive or unknown | | | | |
| Yes | 137 | 46.4 | 73 | 57.9 |
| No | 158 | 53.6 | 53 | 42.1 |
| Sex with partner who injects drugs | | | | |
| Yes | 113 | 38.4 | 74 | 58.7 |
| No | 181 | 61.6 | 52 | 41.3 |

^a Main partner is defined as someone to whom the participant is committed

^b Casual partner is defined as someone the participant is not committed to or does not know very well

^c Refers to having given or received things like money or drugs in exchange for sex

**Table 7. HIV/STI testing - NHBS persons who inject drugs, Hampton Roads
MSA, 2022**

| | n | % |
|----------------------------------------------------------------------|-----|------|
| Ever tested for HIV | | |
| Yes | 479 | 90.7 |
| No | 49 | 9.3 |
| HIV test, past 12 months^a | | |
| Yes | 139 | 29.0 |
| No | 340 | 71.0 |
| Location of recent HIV test^b | | |
| Public health clinic or community health center | 33 | 23.7 |
| Hospital (inpatient) | 31 | 22.3 |
| Private doctor's office | 18 | 13.0 |
| Correctional facility or jail/prison | 15 | 10.8 |
| Drug treatment program | 15 | 10.8 |
| Emergency room | 6 | 4.3 |
| HIV counseling and testing site | 3 | 2.2 |
| HIV/AIDS street outreach program or mobile unit | 3 | 2.2 |
| Other | 13 | 9.4 |
| Reason for not receiving HIV test, past 12 months^c | | |
| No particular reason | 217 | 65.4 |
| Afraid of finding out he/she had HIV | 42 | 12.7 |
| Thought he/she was at low risk for HIV infection | 42 | 12.7 |
| Did not have time | 19 | 5.7 |
| Some other reason | 12 | 3.6 |
| Tested for STI, past 12 months^d | | |
| Yes | 128 | 24.0 |
| No | 405 | 76.0 |

^aData include participants that reported ever receiving an HIV test, but did not report a previous HIV-positive test result

^bData include participants that reported an HIV test in the past 12 months

^cData include participants that have never tested positive for HIV and did not receive an HIV test in the past 12 months

^dSTI= Sexually transmitted infection. This includes gonorrhea, chlamydia, and syphilis

Table 8. HIV prevalence - NHBS persons who inject drugs, Hampton Roads MSA, 2022

| | n | % |
|-----------------------------------------------------------------------------------------|-----|-------|
| Ever tested positive for HIV^a | | |
| Yes | 18 | 3.8 |
| No | 459 | 96.2 |
| Told where to get HIV care within 30 days of first positive HIV test^b | | |
| Yes | 18 | 100.0 |
| No | 0 | 0.0 |
| Seen health care provider for HIV infection^b | | |
| Yes | 18 | 100.0 |
| No | 0 | 0.0 |
| Currently taking antiretroviral medication^c | | |
| Yes | 14 | 77.8 |
| No | 4 | 22.2 |
| Ever had HIV viral load (VL) test^c | | |
| Yes | 15 | 93.8 |
| No | 1 | 6.3 |
| Result of most recent VL test^d | | |
| Undetectable ^e | 12 | 85.7 |
| Detectable, but less than 5,000 viral copies/mL | 2 | 14.3 |

^a Data include participants that reported ever receiving an HIV test

^b Data include participants that reported ever testing positive for HIV

^c Data include participants that reported seeing a health care provider

^d Data include participants that reported ever receiving VL test

^e Undetectable viral load defined as < 200 copies/mL

**Table 9. HIV prevention activities- NHBS persons who inject drugs,
Hampton Roads MSA, 2022**

| | n | % |
|------------------------------------------------------------------------------------|-----|-------|
| Received free condoms, past 12 months | | |
| Yes | 225 | 42.2 |
| No | 308 | 57.8 |
| Location received free condoms^a | | |
| Doctor's office, health center, clinic, or hospital | 72 | 32.0 |
| Some other place | 61 | 27.1 |
| Other community organization | 54 | 24.0 |
| Participated in discussion about HIV prevention, past 12 months | | |
| Yes | 102 | 19.1 |
| No | 431 | 80.9 |
| Ever heard of pre-exposure prophylaxis (PrEP) before interview^b | | |
| Yes | 154 | 29.9 |
| No | 361 | 70.1 |
| Discussed taking PrEP with health care provider, past 12 months^c | | |
| Yes | 8 | 5.2 |
| No | 146 | 94.8 |
| Taken PrEP, past 12 months^c | | |
| Yes | 0 | 0.0 |
| No | 154 | 100.0 |

^aThree most frequently reported locations. Numbers will not add up to 100 as participants were able to choose more than one location. Data include participants that received free condoms

^b Data include participants that never tested positive for HIV

^c Data include participants that had heard of PrEP before the interview

^d Data include participants that used PrEP in the past 12 months